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ABSTRACT

Teaching and Learning in Graduate Geography (TLGG) projects are described in three presentions from participating universities--the University of Iowa, University of Illinois, and The Clark Teaching and Learning Project. Iowa's TLGG Pilot Project provides instruction and controlled clinical experience in college teaching for graduate students and includes a conference/retreat, a two semester seminar on college geography teaching, and clinical use of the experience of being a teaching assistant. Illinois's Teaching Preparation for Doctoral Students is part of an aim to strengthen preparation for teaching yet maintain intensive research training in geography. It consists of an orientation, a seminar on teaching skills, individual projects in teaching and materials development, informal discussion on teaching problems, and a seminar in higher education. The Clark Teaching and Learning in Graduate Geography Project views teaching and research as the same process looked at from different points of view. It includes a module entitled Geographic Ways of Knowing, a module dealing with teaching strategies, and a practicum. Assessment of all the programs will be directly related to the follow-up experience of the various participants. (JH)

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The Clark Teaching and Learning in Graduate Geography Project

Duane S. Knos
October 26, 1973

Most geographers find that teaching occupies a major portion of their effort. In view of this fact, it is curious that the formal consideration of the art of teaching is actually ignored in graduate training. Most graduate programs concentrate on research; an activity which is undeniably of critical importance. Nevertheless, programs designed to experiment with ways of integrating a teaching component in graduate education would seem to be in order.

The Clark Teaching and Learning in Graduate Geography Program has evolved from participation in the Training of Teacher Trainers Project. That program dealt with several concerns of which two provided particularly relevant experience within the context of the present program. Each TTT fellow participated in the same graduate program, completing the same set of requirements that all doctoral students complete. In addition, TTT fellows were required to develop teaching and research experiences appropriate to the various levels of the educational establishment ranging from elementary school through the liberal arts college. In this latter set of activities fellows approached the problems of knowledge by experimenting with various learning models especially those of a developmental nature. These considerations were carried out in a practicum and a set of

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seminars devoted to preparation for and evaluation of the practicum experience.

From these experiences evolved the realization that the act of teaching and the act of research deals with essentially the same process looked at from different points of view. The effective researcher is a creative, self-actuating, ever developing learner. The effective teacher creates experiences in which students may become creative, self-actuating and ever developing learners. In one case the professional is the actor and in the other the professional sets the stage for the actors and helps them in their roles. It is from this notion that the question to which the Clark program addresses itself is derived. Can a consideration of the art of teaching geography help significantly in the training of creative scholars and at the same time help to improve the quality of geography teaching?

The design of the project to begin the consideration of this question involves three components during the current year. The eight TLGG fellows have joined the students entering this Graduate School for the first time in a course for the first module of the year[1] entitled "Geographic Ways of Knowing." In this course the problems of knowledge, the problem of creativity, the nature of science, and

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[1]The Clark calendar divides the school's year into five seven-week modules.

the nature of the discipline of geography is considered in a series of activities that illustrate significant ideas in the development and organization of knowledge. We feel that such considerations are as relevant to the act of successful teaching as it is to successful research.

During the second module the eight TLGC fellows will split off to deal directly with the problems of teaching. During this period, we will deal with alternative teaching strategies and the implications of each strategy in terms of the problems of knowledge, the sociology of the classroom, the utilization of resources and the evaluation of the activity. These considerations will be focused in the planning of a curriculum to be implemented during a practicum experience which is scheduled for the third and fourth modules.

The practicum will offer a wide variety of experiences from which fellows may choose. Some fellows may be involved as teaching assistants in regularly scheduled courses. Others may offer introductory courses for Worcester Junior College students. Still others may teach specially designed courses or pro-seminars offered as experimental courses for Clark undergraduates. One or two may even work as supervisors of student teachers working in the public schools of Worcester. But whatever the nature of the practicum experience, it will be viewed as an experiment in the construction of learning experiences.

To facilitate the experiments offered in this practicum, a seminar will be held to deal with problems arising in the day to day activities of the various courses. A seminar meeting may deal with diagnosing specific problems or with sharing insights derived from a particular classroom event. The seminar may also deal with collecting information that may be used in evaluating the practicum experiment for the light it sheds on the process of learning that occurs in a classroom. Finally, the seminar may be used to articulate a participant's awareness of his own learning process and consider the implication of that process in the context of geographical research.

This is the substance of the structured program. The operations of the program, however, are developmental. That is, things learned in one "bit" of the program may very well affect the substance of subsequent experiences. As a result, evaluation of the program is both complex and critical. We are not sure that we know how to assess the value of the program as it unfolds. Consequently, we plan to provide time for all of the participants in the program to meet at frequent intervals to consider the evaluation problems and to experiment with a variety of ways and means to value the procedures and to communicate those evaluations to others.

TEACHING PREPARATION FOR DOCTORAL STUDENTS

Department of Geography
University of Illinois at Urbana-Champaign*

Introduction

Faculty members in colleges and universities generally have responsibilities in three areas: teaching, research and service to the university. However, doctoral students have been prepared primarily for research. For the most part, training for teaching has been restricted to experience gained by service as assistants to faculty teaching large introductory courses. Equivalent informal and restrictive preparation would not be regarded as adequate for a research career.

Developing a program which will strengthen preparation for teaching, yet maintain intensive research training is a task which we have been addressing at the University of Illinois for several years. The current program developed as a part of the AAG TLGG project incorporates some well established elements but adds other experimental components.

Program Objectives

The general objective of the program is to devise a model which will give graduate students the opportunity to improve their competancy or lay a basis for future competancy as college professors. Specifically, the program is designed to give participants instruction, experiences and opportunities for analysis and evaluation in aspects of the faculty role such as developing (1) an individual educational philosophy, (2) competancy in a variety of teaching skills such as course design, materials selection, activity preparation and

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student evaluation (3) a sense of professionalism with respect to teaching similar to that prevailing toward research (4) insights and methods for self-evaluation and (5) a sensitivity to the potentialities of student contributions.

Some Assumptions and Constraints Influencing Program Development

The decision to proceed with the program of teacher development was based on not only considerations of the program desirability, but also on the knowledge that there was sufficient commitment of interest at student and faculty levels to expect that a viable program could be sustained. Examples of this interest include (1) an orientation program for teaching assistants had been conducted for several years, (2) connections had been established between the department and the University's Office of Instructional resources, including financial support for course development and evaluation work by Geography faculty and graduate students, (3) faculty members teaching introductory courses had been holding meetings with assistants to discuss course specific matters.

Five major considerations shaped the directions of new program development.

1) A component was needed which would permit teaching assistants to review and analyze their classroom experiences and problems and be introduced to some new ideas about teaching. Existing meetings appeared not to serve this purpose being more concerned with questions of course administration, content and specific materials. A seminar "Improving Teaching Skills (see below) should be inaugurated to provide this new experience.
2) The existing range of teaching assistant assignments, leading small discussion sessions or supervising laboratories, did not provide experience in many of the areas of a faculty member's normal duties. More appropriate training should include a broader range of experiences. Options for

individual students should be incorporated into our program (see below: Spring Semester)

3) Individual graduate students have different levels of experience and interest in teaching which should be recognized in program development (see below: Spring Semester)

4) Staff resources do not permit the inclusion of all graduate students in the program simultaneously because of the time required for supervision which would be comparable to that for suvervising research projects.

5) The program design should be flexible enough to permit modifications during its operation (see below: "Evaluation")

Participant Selection

Participants are selected from those students who are in the Ph.D. program on the basis of their own expressions of interest. Students holding teaching assistantships are preferred because of the opportunity for teaching thus provided. The only exception to self-selection is for the orientation program which includes all new teaching assistants.

Program Components

1) Orientation Program

This segment of the program is a one week session prior to the beginning of the academic year. Its purposes are to define the major objectives of the training program, to indicate a departmental commitment to the importence of teaching, to introduce and give practice in selected teaching activities, and to acquaint new teaching assistants with the department and with one another.

The week's activities include primarily a lecture series by Professor Roepke and practice sessions for participants with critiques by other participants and Professors Roepke and Monk. In the lectures Roepke addresses both

philosophical issues, such as the role of the teacher,and practical questions such as lecturing styles and examining procedures. Participants present mini-lectures, lead discussions and prepare short quizzes. Critiques are made in an informal manner and aim to be constructive. A major function of these sessions is to help the new teaching assistants gain some confidence before approaching their first classes.

2) Seminar: Imrpoving Teaching Skills

A seminar for teaching assistants is conducted by Janice Monk in the Fall semester. The seminar is open to approximately eight participants, who are mostly teaching in one of the four introductory courses in the department. One or two may be teaching is advanced courses. The seminar meets for two one hour periods weekly. One class period is relatively structured and serves to introduce various topics such as defining course objectives, meeting first classes and pre-testing, collecting and using diagnostic evaluation data, test construction and ayalysis and various teaching strategies such as the use of simulation games, audio-tutorial methods and so on. The second class period is allocated to informal analysis of teaching experiences and problems and to review assignments made in the formal sessions. Some time will also be allocated to reviewing videotapes of classes in session. Topics emerging for discussion in these informal sessions include questioning behavior in the classroom, examination methods, teaching assistant-faculty relationships, teacher's self-images, student-teacher relationships, classroom furniture arrangements and a variety of other issues.

Students receive 1/2 unit (3 hours) of credit for seminar participation.

Spring Semester

Participants will continue with their normal teaching assignments but the primary objective of the spring semester program is to provide students with a wider range of experiences than they normally obtain as teaching assistants in introductory courses. During the year of funded program experimentation this element is confined to the second semester. In a "normal" year, it might be available at any time to more advanced graduate students. The elements outlined below are included in this segment of the program.

A) Individual Programs

Graduate students may choose from one of a number of options proposed by faculty members or may initiate their own proposals. Sample options include:

1) Responsibility for teaching portion of an upper division course (300-400 level).
2) Team or individual teaching of a lower division course (100-200 level), likely a small undergraduate seminar.
3) Organizing and assisting with supervision of field trips or field courses.
4) Supervising undergraduate independent study projects.
5) Advising undergraduate students.
6) Developing materials and activities for specific courses.
7) Developing evaluation procedures and material (testing and course evaluation).

These individual options may earn graduate credit or the participant may be paid a small honorarium or both. Professor Monk will administer and coordinate the program with the co-operation of the faculty members with whom students are teaching.

B) Seminar Sessions

1) Informal review and discussion sessions, paralleling those of the first semester, will be held every two or three weeks. These will provide the opportunity for participants to share their individual program experiences and problems. Graduate credit will not be awarded separately for this seminar, but will linked to credit for individual options. Professor Monk will lead these seminars.

2) Howard Roepke will offer a seminar in higher education which will examine four basic themes: (1) the development of the university in the American educational system; (2) new trends in higher education; (3) the role of the university in society; and (4) the role of the individual faculty member in the university community. This seminar is offered for 1/2 unit credit.

Evaluation

Two distinct evaluation components are included in the program. The first is concerned with monitoring the program while it is in operation to make any short-term adjustments which might be appropriate. To this end, for example, a student observer/recorder is attending the first semester seminar sessions and providing feedback to Professor Monk.

The second evaluation component is designed with the objective of making judgements at the conclusion of the program and will be concerned with measuring participants' reactions to the program. It will also address questions which might be of concern to the professional audience interested in developing college teacher training programs. In this case evaluation will deal with questions related to the effectiveness of program components,

demands made by the program on participants and staff time, program costs, the appropriateness of staff roles and so on.

At the present time it appears that a one or two day off-campus session will be held at the end of the second semester to review and evaluate the year's trial program.

All evaluation components are developed and carried out with the assistance of Professor H. R. Smock, Head, Course Development Division, Office of Instructional Resources.

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TLGG Pilot Project

University of Iowa

The teacher training component of the graduate program in geography at Iowa is conceived as a sequenced four-year program running parallel to and integrated with the research training component. It provides instruction and controlled clinical experience in college teaching such that increasing competence and increasing ability to accept independent teaching responsibility is achieved by all those graduate students preparing for college teaching careers. With the exception of a small number of students entering the planning profession with M.A. degrees in geography, practically all of Iowa's geography graduate students in recent years have entered college teaching. We have no graduate program preparing persons for secondary or elementary teaching.

Although the program builds on several elements that were part of the program in prior years, the availability of extra funds through participation in TLGG has resulted in a markedly higher degree of organization and integration of activities during the academic year 1973-74. The program has three main elements: a) a conference/retreat held at the beginning of the fall semester; b) a two semester seminar on college Geography Teaching; and c) an effort to organize departmental service as a Teaching Assistant so that it becomes a more effective clinical teaching experience.

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Conference/Retreat

The departmental College Teaching Retreat was held August 31-September 2, 1973 at the Episcopal Conference Center, a 160 acre camp-like facility near Boone, Iowa. This was the first weekend following University registration. Participants were as follows:

- 5 members of the department's faculty - those, including the Chairman, who have responsibility for the large introductory geography courses
- 11 graduate Teaching Assistants - a total of 13 graduate students have TA assignments this year, but two were unable to attend
- 4 advanced graduate students who are serving as Senior Teaching Mentors under the TLGG project
- 2 advanced graduate students who are on University supported Teaching-Research Fellowships.

The cost per person was $16.00 which included two nights in the dormitory style lodges and six meals. This was covered by the TLGG project. Transportation costs from Iowa City were borne by the department.

The overall goals of the retreat were primarily to generate enthusiasm for and a commitment to the department's efforts to promote good teaching and to train good college teachers and, secondarily to inform department members about the expanded program and to speed up the process of student-faculty getting to know and trust one another. As a frankly consciousness-raising experience it was conducted in an atmosphere of relaxed openness with specific activities designed to promote discussion of what a commitment to good teaching involves.

The particular activities organized into sessions of approximately 2 hours, can be briefly summarized.

Friday evening: opening session devoted to retreat objectives, a personal statement of commitment to teaching by Clyde Kohn and a free and open discussion of teaching roles, stereotyping, and images of self-growing out of an assignment to write down 10 items in response to the question, "who are you"?

Saturday morning: participants were divided into small groups and asked to write down the qualities and observable behaviors of a good teacher. This was followed by general discussion of the small group deliberations.

Saturday afternoon: participants, again in small groups, were given copies of University of Iowa "Student Rating of Teacher" forms and asked to redesign the forms to reflect their idea of more effective teacher evaluation instruments.

Saturday evening: those with assignments in each of the 3 large introductory courses met together to discuss overall goals plus operational mechanics of these courses.

Sunday morning: devoted to an evaluation of the retreat in both written and discussion form.

One of the advanced graduate students served as a recorder of the retreat and has since conducted a post-retreat evaluation. Copies of this survey are being made available thru the TLGG Project Office. In general, quite positive responses toward the retreat as "a lot of fun" and a means to promote friendship were recorded with less strong, but still positive responses with regard to the acquisition of particular philosophies of teaching-learning or useful teaching skills. One graduate student, however, has left the department, citing the retreat as one strong indicatior that he did not wish to become an academic geographer.

Seminar on College Geography Teaching

Four years ago, Professors Lindberg and Kohn initiated a Seminar in College Geography Teaching at Iowa. It has been offered during one semester each year since, with enrollment averaging 6-8 students, geography graduate students as well as graduate students in the College of

Education preparing for Two Year College Teaching careers.

During the academic year 1973-74, the Seminar is being offered both semesters and enrollment is more than double that of the previous years. The general format of the seminar, which meets once each week for 2 hours, is to give each student an opportunity to create a course, or materials for a sizable portion of a course, of his/her own choosing. The seminar provides reading materials and a forum for discussion of issues raised by such creative activities. Clinical or field testing of the course components are carried on in conjunction with Teaching Assistant duties, or in other departmental teaching activities, or occasionally in the seminar meeting. The flow of the Seminar and the organization of readings and discussion generally follows the standard teaching model, i.e., (a) societal and institutional settings within which learning takes place, (b) legitimate goals of geography courses, (c) instructional objectives, (d) pre-testing, (e) how students learn, (f) strategies for achieving learning, (g) evaluation.

Because of probable scheduling conflicts, the two semesters of the Seminar can be taken independently or in sequence. The fall version is much more structured and aims at raising and discussing issues and the creation of tentative or experimental course materials. The spring semester will seek more extensive clinical testing, modification and elaboration.

Controlled Teaching Assistantships

As is doubtless true with many graduate departments, the record at Iowa with regard to using departmental service as a Teaching Assist as an effective mechanism for college teacher training is mixed. Some course supervisors have worked closely with T.A.s in improving teaching skills,

pointing out alternative ways of achieving learning goals, etc. Most, however, have adopted the training strategy best summarized as "sink or swim." Although not without some educational benefit for graduate teacher training, the TLGG project for 1973-74 at Iowa seeks ways to more effectively utilize the Teaching Assistantship as a training opportunity. Two mechanisms, in particular, are being tried, both with experimental expectations. One involves urging all graduate students with Teaching Assistant appointments to enroll in the Seminar in College Geography Teaching. Of the total T.A.s all but three were able to enroll in the Seminar this fall. About half have chosen to work in the Seminar on portions of the course in which they are serving as T.A.s. Lectures and discussions from the introductory courses are being video taped and brought into the Seminar for discussion.

The second mechanism is the use of advanced graduate students as Senior Teaching Mentors to work with less experienced T.A.s. Two are on quarter-time appointments, two others are on one-eighth time. All four have previously served as T.A.s in the courses involved and are specializing at the Ph.D. level in subject matter areas closely related to the content of these courses. Thus they have both subject matter and teaching skill credibility and were selected as individuals most likely to function effectively in a "helper" role. They have been given considerable latitude in determining what they do from week to week. Actual working with the less experienced T.A. in the classroom is being done, but this is less emphasized. Perhaps more useful so far has been their role in going over with the T.A. the subject matter issues likely to emerge in discussion, in sharing experiences with the conduct of laboratory exercises, in

designing quizzes, etc. The Senior Teaching Mentors have been asked to keep rather close tab on what they have done and to evaluate the effectiveness of their several activities.

We have very little evidence so far as to the effectiveness of this scheme. Participating in the classroom with the T.A. has proven somewhat more of a threat and a disruption than any of the descriptions of such schemes (e.g. Frank Koen reporting on experience at Michigan) had indicated. To some extent this results from the nature of our T.A.s this year. Many came to Iowa with advanced degrees and some had prior teaching experience.

It is premature to attempt an assessment of the program other than what has been done with regard to soliciting attitudes toward the retreat. Records of progress and accomplishment in Teaching are being developed for each T.A. A mid-semester student rating of teacher performance has been completed and has been used primarily by the T.A. for self-improvement, but with individualized counseling by the course directors. Student ratings conducted at the end of the semester will become part of the graduate students permanent file.

November 1, 1973

James B. Lindberg
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